CROWN POINT MS4 CLEAN WATER PROGRAM

WELCOME!

Crown Point Engineering
101 N. East Street
Crown Point, IN 46307
(219) 662-3242

Crown Point MS4 Clean Water Program Steering Committee

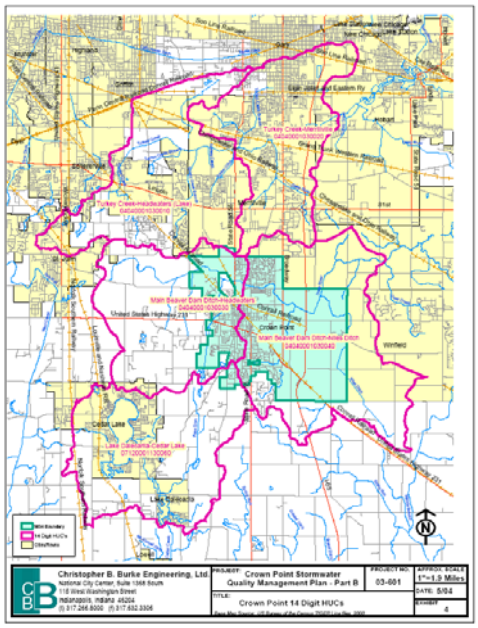
The City of Crown Point has implemented a Clean Water Program that entails a variety of strategies to improve water quality for our residents and environment. Various Departments, Organizations and Agencies are involved with efforts to establish practices to treat stormwater within our watersheds, much of which drains into open waters.

As an initiative to comply with Federal Clean Water Act Regulations and assemble a local group of experts, The City of Crown Point established the a Clean Water Steering Committee. The intent of the committee is to coordinate activities that relate to the enhancement of stormwater in the Crown Point MS4 boundary (corporate limits). Committee members meet monthly to discuss and implement best management practices (BMPs) to improve water quality and quantity. The committee is addressing issues related to (but not limited to) the following areas:

- Planning & Conservation Development
- Public Health & Pollution Prevention
- Local Regulations, Procedures & Inspections
- Education & Outreach
- Recycling
- Mapping
- Natural Resource Preservation/Land Acquisition
- Federal & State Compliance/Reporting
- BMP Maintenance, Improvement & Installation

What is a Watershed?

A watershed is essentially a drainage area or basin where stormwater flows into. These areas are within the confines of a drainage divide (see map). Our activities on the land impacts the quality and hydrology of our water. Pervious surfaces (mostly vegetated areas) allow some infiltration of water into the ground. Water flowing over impervious surfaces (roads, parking lots, rooftops) collect and transport pollutants from the surfaces into receiving waters.



Indiana Drainage Handbook

Floodways

With increased commercial & residential development in the area, it's important to assess whether construction is located in an area subject to flooding (identified on FEMA floodway maps). Contact the Engineering Department (219) 662-3242 prior to any construction in a suspected floodway. IDNR Division of Water Construction in a floodway permits are available online or by calling (317) 232-4160.

Report-a-Polluter!

The quality of water Crown Point is essential for all residents in our watersheds. If you see any suspicious discharge of pollutants into an open channel, inlet or ditch please report it immediately by contacting your local police department. Take photos if possible to provide additional evidence for local investigation efforts. To report a pollution issue to the state call IDEM's 24 hour hotline at 1-888-233-7745. Remember the drain is just for rain!

Background

The United States Congress directed the Environmental Protection Agency (EPA) to issue further regulations to identify and regulate additional stormwater discharges that were considered to be contributing to national water quality impairments. On December 8, 1999, the EPA issued regulations that expanded the existing NPDES Storm Water Program to include discharges from small MS4s in "urbanized areas" serving populations of less than 100,000 and stormwater discharges from construction activities that disturb more than one acre of land. These regulations are referred to as the NPDES Phase II Storm Water Program. The urbanized area portion of Lake County met these criteria and was consequently designated as an MS4 entity. In the State of Indiana, the Indiana Department of Environmental Management (IDEM) is responsible for the development and oversight of the NPDES Phase II Program.

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IDEM initiated adoption of the Phase II Rules which was codified as 327 IAC 15-13 (Rule 13). Rule 13 became effective on August 6, 2003 and requires designated MS4 entities to apply for permit coverage by submitting a Notice of Intent (NOI) and developing Storm Water Quality Management Plans (SWQMPs) through a phased submittal process. The IDEM's phased submittal requirements includes the implementation of a Stormwater Quality Management Plan which was approved on March 1, 2005.

The Crown Point MS4 Clean Water Program Steering Committee is currently in the process of implementing the 5-year plan which was submitted and accepted on June 15, 2005. The plan entails implementation of BMPs within the six following categories:

CONTROL MEASURE CATEGORIES
MCM 1: PUBLIC EDUCATION AND OUTREACH
MCM 2: PUBLIC INVOLVEMENT AND PARTICIPATION
MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION
MCM 4: CONSTRUCTION SITE STORM WATER RUN-OFF CONTROL
MCM 5: POSTCONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT
MCM 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Storm Drains & Sanitary Sewers (What's the difference?)

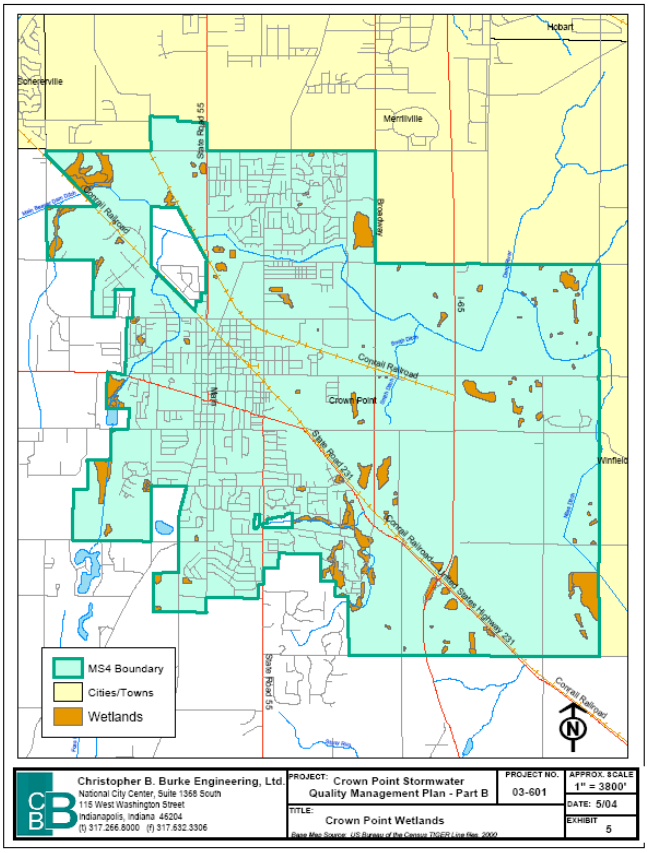
Sanitary sewers receive wastewater from indoor plumbing fixtures such as bathroom sinks, mop sinks, floor drains, washing machines and toilets. Water that goes to the sanitary sewer ends up in a treatment facility.


Typical Storm Drain Inlet

Stormdrains receive rainfall runoff after storm events to control flooding. Water that goes down a storm drain is left untreated and eventually ends up in ditches, creeks and streams. Substances such as detergents, cleaners and grease are harmful to aquatic ecosystems, wildlife and human health. Storm drains are found outdoors, such as on streets, near sidewalks and in parking lots. Think of these drainage systems as rivers beneath your feet! So protect your storm drains by preventing any harmful materials from entering into them and report suspected polluters. The drainage conveyance system is currently being mapped in ArcGIS and will be available online as sections are completed.

Wetlands

The watersheds within the City of Crown Point contains wetlands that serve a variety of benefits including stormwater filtration, flood control and habitat for wildlife. Some of these wetlands are regulated by the U.S. Army Corp of Engineers and IDEM. Prior to any potential disturbance to a suspected wetland contact USACOE at (574) 232-1952 for permitting requirements. Wetland identification must be field verified and delineated by a qualified professional. Unauthorized disturbance could result in substantial fines$$$



Wetland Laws/Permitting:

USACOE/EPA: Section 404 Clean Water Act to regulate dredging or filling in a water body/wetland

IDEM: Section 401 clean Water Act
Indiana Pollution Control Law to regulate dredging or filling in a water body/wetland

IDNR: Indiana Flood Control Act to regulate construction in a floodway

Stormwater Ordinance

The City of Crown Point is preparing to adopt a comprehensive Stormwater Ordinance to regulate activities that impact water quality and quantity. A copy of the ordinance will be available online later this year….

Water Quality Data

Monitoring outfalls periodically by testing the water provides important information that can be utilized to assess health risks. This also may provide a method of early detection as a result of changes impacting the watersheds that need to be addressed. The City is expanding their outfall water quality testing within the corporate limits. EPA water quality standards

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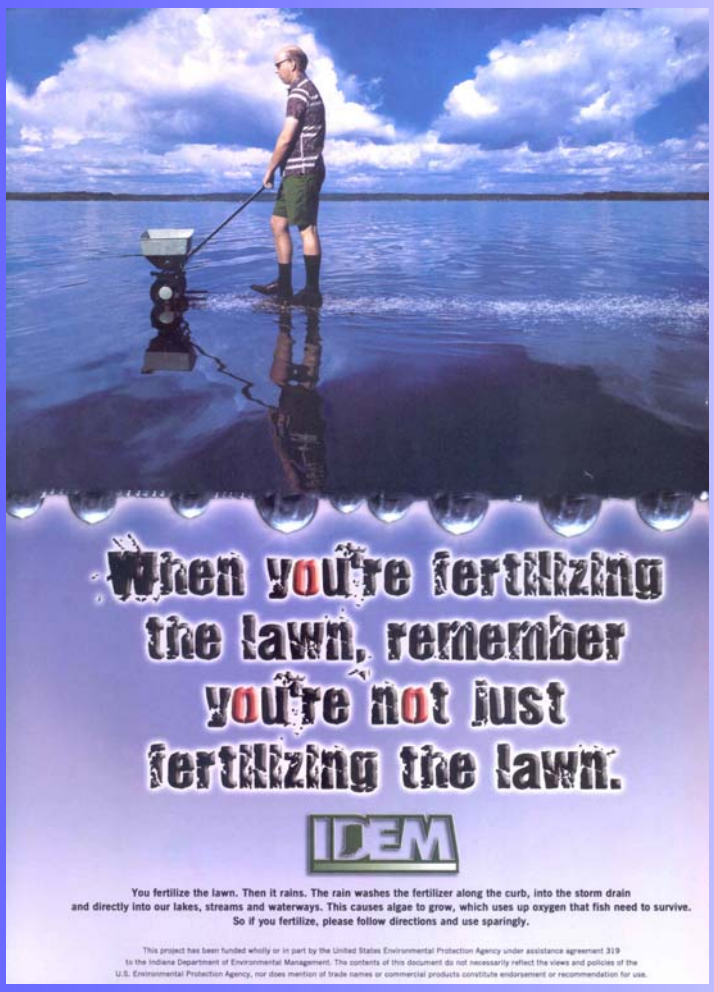
West Nile Watch

The City of Crown Point actively monitors the area for the Culex genus of mosquitoes to help prevent outbreaks of West Nile Virus. This monitoring targets areas for pesticide applications and reduces excess chemicals from entering waterways.

To help prevent west nile virus:

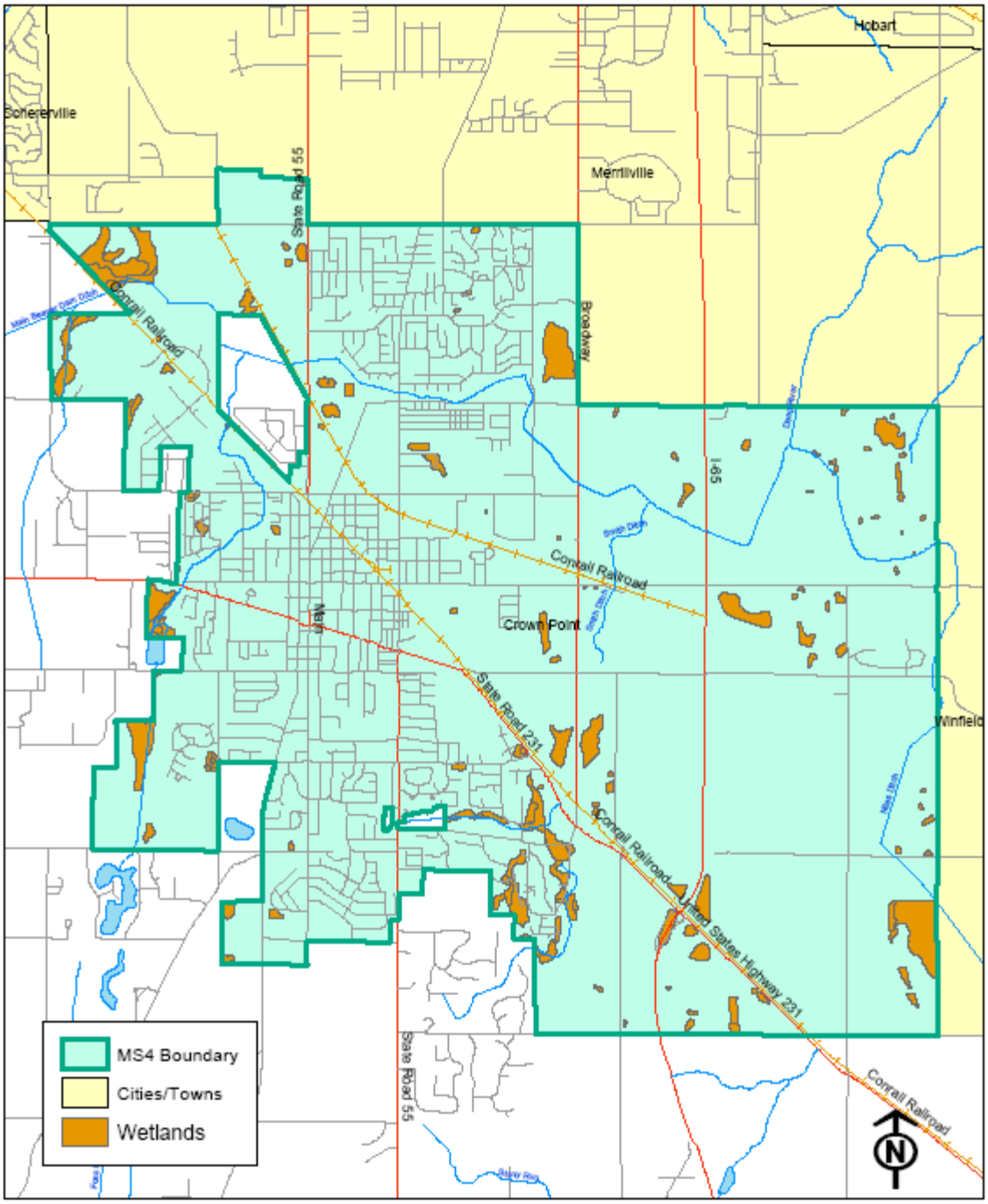
- Use mosquito repellants (those with DEET, picaridin or oil of lemon eucalyptus) especially during peek hours (early morning & evening).
- Eliminate mosquito breeding sites by dumping containment of standing water.
- Attract wildlife that feed on mosquitoes
- Install/repair windows/screens



Currently, more than 60% of water pollution comes from sediment, vehicle fluids, fertilizers and failing septic tanks. A majority of these sources are not from industry, but from all of us who all play a small but cumulative role in water quality. Making small changes in our activities can collectively make a big impact to the quality of water.

Here are a few tips about fertilizers:

-use fertilizers sparingly (fertilizers in the water contributes to algae growth leading to decreased available oxygen for aquatic organisms)
-don't fertilize before a rain storm
-properly dispose of unwanted fertilizers
-consider using organic fertilizers
-mix compost with soil to minimize use of chemical fertilizers
- for additional advice on fertilizers contact :
Purdue University Cooperative Extension—Master Gardeners: (219) 775-3240



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National City Center, Suite 1368 South
115 West Washington Street
Indianapolis, Indiana 46204
(t) 317.266.8000 (f) 317.632.3306

PROJECT: Crown Point Stormwater Quality Management Plan - Part B		PROJECT NO. 03-601	APPROX. SCALE 1" = 3800'
TITLE: Crown Point Wetlands			DATE: 5/04
Base Map Source: US Bureau of the Census TIGER Line files, 2000			EXHIBIT 5

United States Environmental Protection Agency | Office of Water (4203) | EPA 833-F-00-001 January 2000 Fact Sheet 1.0

Storm Water Phase II Final Rule

An Overview

Why Is the Phase II Storm Water Program Necessary?

Since the passage of the Clean Water Act (CWA), the quality of our Nation's waters has improved dramatically. Despite this progress, however, degraded waterbodies still exist. According to the 1996 National Water Quality Inventory (Inventory), a biennial summary of State surveys of water quality, approximately 40 percent of surveyed U.S. waterbodies are still impaired by pollution and do not meet water quality standards. A leading source of this impairment is polluted runoff. In fact, according to the Inventory, 13 percent of impaired rivers, 21 percent of impaired lake acres and 45 percent of impaired estuaries are affected by urban/suburban storm water runoff and 6 percent of impaired rivers, 11 percent of impaired lake acres and 11 percent of impaired estuaries are affected by construction site discharges.

Phase I of the U.S. Environmental Protection Agency's (EPA) storm water program was promulgated in 1990 under the CWA. Phase I relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address storm water runoff from: (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater, (2) construction activity disturbing 5 acres of land or greater, and (3) ten categories of industrial activity.

The Storm Water Phase II Final Rule is the next step in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted storm water runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted storm water runoff. See Fact Sheets 2.0 and 3.0 for overviews of the Phase II programs for MS4s and construction activity.

Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharges that have the greatest likelihood of causing continued environmental degradation. The environmental problems associated with discharges from MS4s in urbanized areas and discharges resulting from construction activity are outlined below.

MS4s in Urbanized Areas

Storm water discharges from MS4s in urbanized areas are a concern because of the high concentration of pollutants found in these discharges. Concentrated development in urbanized areas substantially increases impervious surfaces, such as city streets, driveways, parking lots, and sidewalks, on which pollutants from concentrated human activities settle and remain until a storm event washes them into nearby storm drains. Common pollutants include pesticides, fertilizers, oils, salt, litter and other debris, and sediment. Another concern is the possible illicit connections of sanitary sewers, which can result in fecal coliform bacteria entering the storm sewer system. Storm water runoff picks up and transports these and other harmful pollutants then discharges them – untreated – to waterways via storm sewer systems. When left uncontrolled, these discharges can result in fish kills, the destruction of spawning and wildlife habitats, a loss in aesthetic value, and contamination of drinking water supplies and recreational waterways that can threaten public health.

CROWN POINT MS4 CLEAN WATER PROGRAM
ILLICIT DISCHARGE INVESTIGATION and RESPONSE

Case #: IDDE-06-01
Outfall #:
Date:
Time:
Inspector(s):

City of Crown Point
1321 Merrillville Rd.
Crown Point, IN 46307
(219) 662-3292

Date Requested:_____ Name:_____ Phone:_____ Action(s) Taken:_____

- ☐ Routine Evaluation
- ☐ Complaint Investigation
- ☐ Evidence of Illicit Discharge
- ☐ Currently Discharging
- ☐ Issue Resolved
- ☐ Further Investigation Required
- ☐ Data Entered in Computer

1=conducted inspection
2= sent warning letter of noncompliance
3=issued Notice of Violation
4=utility-stoppage ordered
5=water sample collected for testing
6=contacted state/federal authorities

DRY WEATHER SCREENING

- ☐ Pesence of flow during dry conditions
- ☐ Unusual Odor — Describe:
- ☐ Pollutants in drainage area — Describe:
- ☐ Unusual Color — Describe:

MAINTENANCE SUGGESTED

- ☐ Remove Vegetation
- ☐ Needs Repair
- ☐ Remove Debris

TRACKING

- ☐ Dye test positive
- ☐ Photos taken

SUSPECTED ORIGIN

Facility Name:
Contact Name:
Address:
Phone:

WATER QUALITY TESTING

- ☐ Temperature (C)
- ☐ Conductivity
- ☐ pH
- ☐ Ammonia-Nitrogen (mg/L)
- ☐ Phosphorus (mg/L)
- ☐ E. coli (cfu)
- ☐ Optical Brightness
- ☐ Phenols (mg/L)
- ☐ Lead
- ☐ Arsenic
- ☐ **Sample Fails to Meet EPA Standards**

SITE LOCATION/SKETCH MAP

NOTES